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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,285	04/20/2004	Te-Fu Chen	0941-0947PUS1	2646

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EXAMINER

HANAN, DEVIN J

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/827,285	Applicant(s) CHEN ET AL.	
	Examiner Devin Hanan	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-12 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 22 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/22/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 12/22/2005 have been fully considered but they are not persuasive. The argument that the blades of Nagai et al. are not directly arranged on a hub is not persuasive as the examiner is considering the hub to be comprised of both hub (41) and hub plate (42) because they are one integral part. The sidewall is still considered to be shown by reference numeral 45b.

Drawings

The drawings were received on 12/22/2005. These drawings are accepted.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagai et al. (U.S. Patent 4,647,271).

Nagai et al. discloses an impeller with a hub (42) having an upper surface and a center point (axis of rotation) and a plurality of blades (43) having bottom portions

arranged in a circle on the upper surface (upper part of hub 42) with respect to the center point.

Regarding claim 2, Nagai et al. discloses all of the elements of claim 1 and impeller blades (43) formed into an annular structure having an outer diameter greater than that of the hub (figure 27, equivalent to figure 23 without hub ring 46).

Regarding claim 3, Nagai et al. discloses all of the elements of claim 1 and 2 and an impeller with a hub having a sidewall (45b) and the bottom portion of each blade has a portion extending downward along sidewall (figure 27).

Regarding claim 4, Nagai et al. discloses all of the elements of claim 1 and an impeller with blades having an outer diameter equal to that of the hub (figure 23).

Regarding claim 6, Nagai et al. discloses all of the elements of claim 1 and that the impeller hub and blades that are integrally formed (col. 1 lines 15-20).

Regarding claim 7, Nagai et al. discloses a fan (from figure 1) with a frame (1), a motor (5), a hub (42), disposed in a frame and containing the motor therein having an upper surface and a center point (axis of rotation) and a plurality of blades (43) having bottom portions arranged in a circle on the upper surface with respect to the center point (axis of rotation).

Regarding claim 8, Nagai et al. discloses all of the elements of claim 7 and the blades have an outer diameter greater than the hub (figure 27).

Regarding claim 9, Nagai et al. discloses all of the elements of claim 8 and the hub (42) has a sidewall and the blade (43) extends down along the sidewall (figure 27)

Regarding claim 10, Nagai et al. discloses all of the elements of claim 7 and discloses the outer diameter of the blades to be equal to the diameter of the hub (figure 23).

Regarding claim 12, Nagai et al. discloses all of the elements of claim 7 and that the hub and blades are integrally formed (col. 1 lines 15-20).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai et al. Nagai et al. discloses all of the claimed limitations in claims 1 and 7, but does not disclose expressly that the blades have an outer diameter less than that of the hub. Instead, Nagai et al. indicates that the outer diameter of the blades is either equal or greater than the diameter of the hub.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to arrange the blades to have an outer diameter less than that of the hub because Applicant has not disclosed that the claimed arrangement provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the

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blades of Nagai et al., and applicant's invention, to perform equally well with either the arrangement taught by Nagai et al. or the claimed arrangement of the blades to have an outer diameter less than that of the hub because both arrangements would perform the same function of moving air radially.

Therefore, it would have been prima facie obvious to modify Nagai et al. to obtain the invention as specified in claims 5 and 11 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Nagai et al.

Prior Art

The patents listed in the Information Disclosure Statement are considered particularly relevant, but are not used in a rejection at this time. In particular, TW200410628 is considered to shown all the claim limitations in both of the independent claims.

The patent to Kamada et al. (U.S. Patent 6,591,516) was cited for its teaching of mounting a motor inside the hub (figure 1, motor 15). Kamada et al. also teaches of fan blades mounted directly to the hub (hub is taken to be the entire element 19).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devin Hanan whose telephone number is 571-272-6089. The examiner can normally be reached on Monday through Friday.

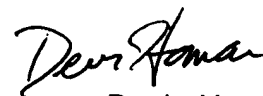
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on 571-272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).



Devin Hanan
Patent Examiner
Art Unit 3745



EDWARD K. LOOK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

2/9/06